

Original Research Article

Frequency of supplement and multi-vitamins uses rate among Ardabil medical students, Iran

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ABSTRACT

Background: Today, the tendency to use supplements such as multivitamins and minerals in different communities and especially among young people and students has been increased. The aim of this study was to investigate the consumption rate of supplements and multi-vitamin pills among Ardabil medical college students.

Methods: Methods: This descriptive-analytical study has been done on 100 students which selected randomly from Ardabil medical university. Data Collected by a questionnaire and analyzed by statistical methods in SPSS.16.

Results: 47% of students were male and the mean age of them were 20.8 ± 1.6 . 90% of all students were single and 62% have moderate economic level. 47% of students used the supplement and multi-vitamin pills in recent year which 42.6% of them pointed to "lack of vitamin" as the main reason for their use. 38.3% of students which used supplement pills pointed that their own physician have main role in their supplements usage.

Conclusions: Results showed that the prevalence of using supplement and multi-vitamin pills among medical students were in moderate level which need for doing more research and educational interventions in future for decreasing rate of supplement usage among them.

Keywords: Ardabil, Multi vitamin, Supplement pills, Student

INTRODUCTION

Supplements and multi-vitamin are available products that consumed as an addition to the usual diet by many sub-populations such as college students.¹

Today because of some considerable progress in various scientific fields and also access of more people to many different drugs, this easy access had been change to a social phenomenon in society due to increasing drug arbitrary use among more people. Drug arbitrary use and self-therapy is one of the common economical, healthy and social problems in societies such as Iran and

developing countries. Many studies showed that the rate of drug prescription was inconsistent with country people and epidemiology of diseases that can be related to drug arbitrary use and self-therapy by more people in society. Drug arbitrary use is one of the health problems which caused by some factors such as increasing drug consumption rate, drug resistant, lack of optimal therapy, poisoning, unwanted side effects and others.²

Today, tendency to use of supplements such as multi-vitamins and minerals in many societies had been increased and these nutritional supplements have related

with demographic characterized of people such as age, sex, healthy behaviors and suffering to chronic diseases.

Also, studies showed that the use of other nutritional supplements had been increased in people who tend to have lower weight and their use will increase with higher weight and obesity of people.

Use of nutritional supplements related to many factors such as age, marital status, fear of osteoporosis and use of multi-vitamin supplements.

For example, some studies showed that using supplements such as Calcium and Iron between married people was more than single people. Also, Iron and Folic Acid supplementation programs in developing countries showed that even attitudes and cultural beliefs can also affect patterns of dietary supplements.³

Studies showed that about 65% of diseases in country is due to non-compliance with the correct pattern of prescription drugs and irrational use of medicines by the people. According WHO statistics, Iran is among the first twenty countries in the world and is the second highest in Asia after China in terms of drug use.⁴

By search in the SID, Magiran, IranMedex and PubMed we see that the research about this topic in Iran country Iran is few and the aim of this study was assessment the frequency of supplements and multi-vitamin pills among Ardabil medical university students.

METHODS

This is a descriptive –cross sectional study that has been done on 100 university students selected randomly from Ardabil all medical university students. We used a questionnaire for gathering data included part I: demographic data Part II: questions about use of all supplements such as Iron, Calcium, Multi-vitamin and etc. Reliability and validity of questionnaire checked by scientific methods. We take the consent from all students before study and after consent the questionnaire completed by all samples and then collected data analyzed by statistical methods in SPSS.16.

RESULTS

The most popular products that college students took as their supplements diet were: Iron (39%), multi-vitamin (36%), Calcium (22%), Fitness & Gym tablets (20%), Zinc(18%) and weight loss tablets (9%) (Table 1).

Table 1: Method of known supplements by students.

Method of known supplements type of Supplements	Own doctor	Friends and relatives	Book and newspaper	Own decide	Total (%)
Iron	15(38.5)	8(20.5)	7 (18)	9 (23)	39
Calcium	12 (54.5)	3 (13.6)	3 (13.6)	4 (18.2)	22
Zinc	6(33.3)	5 (27.7)	5 (27.7)	2 (11.1)	18
Weight loss tablets	5(55.6)	1 (11.1)	2 (22.2)	1(11.1)	9
Multi-vitamin	7(19.4)	10(27.8)	14 (38.9)	5(13.9)	36
Fitness & Gym tablets	7(35)	6(30)	4 (20)	3(15)	20

Table 2: Causes of supplemental and multi-vitamins use among study student.

Causes of supplemental use Type of Supplements	Anemia	Lack of optimal nutritional condition	Osteoporosis	Neuromuscular problems	Increasing height	hair loss prevention	Diabetes and obesity	Energy supply	Lack of materials	Increase muscle mass	other factors	Total (%)
Iron	24 (61.5)	5 (12.8)									10 (25.6)	39
Calcium		7 (31.8)	4 (18.2)	6 (27.3)							5 (22.7)	22
Zinc		4 (22.2)			5 (27.8)	5 (27.8)					4 (22.2)	18
Weight loss tablets		1 (11.1)					6 (66.7)				2 (22.2)	9
Multi-vitamin		7 (19.4)							18 (50)		11 (30.6)	36
Fitness & Gym tablets		5 (25)						3 (15)		10 (50)	2 (10)	20

Table 3: Causes of non-use supplements and multi-vitamins among study students.

Non-using supplements causes Type of supplements	Financial disability	No need for use	Other factors	Total (%)
Iron pill	9 (14.8)	43 (70.5)	9 (14.8)	61
Calcium pill	9 (11.5)	56 (71.8)	13 (16.7)	78
Zinc pill	10 (12.2)	56 (68.3)	16 (19.5)	82
Weight loss pills	9 (9.9)	74 (81.3)	8 (8.8)	91
Multi-vitamin pills	10 (15.6)	44 (68.8)	10 (15.6)	64
Tablets Gym	11 (13.8)	59 (73.8)	10 (12.5)	80

Of all students use Iron, 24 (61.5%) pointed to anemia as a reason for use supplements and 38.5% declared that they advised by own doctor for use supplements (Table 2).

Only 38.5% of Iron consumers have knowledge about its side-effects. Of those who not use iron, nine people were reported to “financial inability” as a main cause (Table 3).

28 (71.8%) of them reported that if the condition is provided they use the Iron supplements. There wasn't significant relation between age, marital status, economic and Iron and multi-vitamin use but the relation between sex and supplements and multi-vitamin use were significant because more of them were female ($p=0.001$).

70.5% of students that non using Iron pills, declared that they no need for use.

DISCUSSION

In this study, about half of students (48%) use of supplements and multivitamins which was more than other places.⁵⁻⁸

In the study done by fattahzadeh and et al, the frequency of food supplements usage between college students was 66.8% which was more than our study results.¹

In this study, factors such as age, marital status, economy haven't significant relation with supplemental use but in many studies this relation was significant for example by male student's idea, the most reason for use supplements was “want to reach an optimal nutritional condition” but by female idea was “Neuromuscular problems and osteoporosis”.^{3,6,9,10}

It seems that other factors have role in tendency of students to use these pills and also because of more consumers of supplements, vitamin D and Iron pills were female and for drug abuse side-effects, female students was more than male students in risk and need for interventions to promotion their knowledge and attitude in society for changing their behaviors to healthy behaviors.

Also, there was a significant relation between weight loses pill use and marital status because more of users was single and this result declared the more tendency of singles people to uses these pills.

By idea of multi-vitamin consumers, many other factors have role in their tendency to use pills and most of them familiarize with supplements by own doctors. So, rising the society awareness about the standard usage rate of supplements, their side-effects and the resources for daily taking these vitamins is necessary.

In this study, the rate of use supplements in female was more than male which similar to other study results.^{6,8,11}

According to the high prevalence of osteoporosis in female and people in upper age groups, tendency to use supplements such as Iron, Calcium and Vitamin D is predictable.^{6,11-13} Marriage is one of the factors influencing the use of nutritional supplements.^{6,10}

In this study there wasn't relation between marriage and use of supplements but in Tehran study this relation was significant.⁶

In Lipid and Glucose study in Tehran, tendency to use nutritional supplements in married people was more than single people.¹⁰

But unlike the present study, in the study carried out on Taiwan and America, the relation between marital status and use of supplements not confirmed which could be the result of social, cultural and economic factors in many societies in compare with Iran society which have different life style in compare with other studies.^{11,14} In this study, participants who did not use any type of nutritional supplements (53%), reported the reasons of not using of nutritional supplements as follow: 14% of participants due to the “lack of sufficient financial capability”, 73% due to “not requiring nutritional supplements”, 13% because of “other factors”. The findings of this study showed that the use of Iron and multivitamin supplements were the most common form of nutritional supplements among the surveyed students.

CONCLUSION

Results showed that the uses rate of supplemental among Ardabil university students was moderate which higher than other studies. So, programming for rising the student and youth awareness about the side-effects of supplemental and doing more research and educational interventions in future for decreasing rate of supplemental usage among them is necessary.

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